

GENERIC · CHASSIS

C0585

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0585

Brake Booster Motor B Phase U-V-W Circuit High

The anti-lock brake system (ABS) module has detected an abnormally high voltage on the phase U, V, or W circuit that feeds the brake booster motor, which is the electric pump responsible for building vacuum or hydraulic pressure for power-assisted braking. This code indicates that the motor's electrical circuit is drawing too little current or seeing voltage above the expected range, often due to a poor connection, a damaged winding, or a faulty control module.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Brakes, steering and suspension

Symptoms you may notice

- Illumination of the ABS warning light and possibly the red brake warning light on the dashboard.
- A hard brake pedal that requires noticeably more effort to stop the vehicle.
- The brake booster motor may run continuously or not at all, sometimes accompanied by unusual noises from the booster area.
- Reduced or loss of power brake assist, especially during the first few presses of the pedal after starting.
- Often no symptoms besides the warning light, with normal brake feel in some cases.

Common causes, most likely first

- 1 Corroded, loose, or damaged electrical connector at the brake booster motor or ABS module.
- 2 Open or high-resistance wiring in the phase U, V, or W circuit between the motor and the ABS module.
- 3 Failed brake booster motor with an internal open winding or brush wear.
- 4 Faulty ABS control module not properly driving or monitoring the motor phases.
- 5 Water intrusion or contamination in the motor connector causing high resistance.
- 6 Blown fuse or relay in the brake booster motor power supply circuit (though this often sets a different code).



How to diagnose and fix it

- 1 Inspect and clean the brake booster motor electrical connector and ABS module connector for corrosion or damage.
- 2 Measure resistance of the phase U, V, and W wires from the ABS module to the motor and compare to specifications.
- 3 Check for short to voltage or ground on each phase wire with a multimeter.
- 4 Test the brake booster motor directly with a known-good power source to verify it spins freely and draws normal current.
- 5 If wiring and motor test good, suspect the ABS control module and perform a voltage drop test on its power and ground circuits.
- 6 Replace the faulty brake booster motor or ABS module as needed, then clear codes and perform a road test to verify the repair.

Hidden Causes of Brake Booster Motor Codes

- A weak or failing battery or charging system can cause the ABS module to misreport phase voltage faults, so always check system voltage first.
- The brake booster motor may only run during certain conditions, such as initial key-on or when the brake pedal is pressed, so a static voltage test may not reveal the fault.
- Corrosion inside the motor connector is a common culprit that mimics a failed motor, and simply cleaning the terminals often resolves the code.
- This code can be set by a momentary voltage spike during engine cranking, so check for a stored history code before condemning parts.
- After replacing the motor or module, some vehicles require a calibration or learn procedure for the ABS system to fully clear the code.

Can I keep driving with C0585?

If the brake pedal feels normal and the warning light is the only symptom, you may drive cautiously to a repair shop, but avoid heavy braking or towing. If the pedal is hard or braking assist is reduced, stop driving immediately and have the vehicle towed, as stopping distance will be significantly increased.

Tools that help

- OBD-II scan tool with ABS capability
- Digital multimeter
- Wiring diagram for the ABS and brake booster circuit
- Socket and ratchet set
- Terminal cleaning tools



Reading C0585

- C** Chassis: brakes, steering and suspension.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Brakes, steering and suspension.
- 85** The exact fault within that area.

Often seen with

C0110 ABS Pump Motor Circuit Malfunction · **C0586** Brake Booster Motor B Phase U-V-W Circuit Range/Performance · **C0587** Brake Booster Motor A Position Sensor Circuit/Open · **C0588** Brake Booster Motor A Position Sensor Circuit Low

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0585/>

